

Amendments to the Claims:

Please amend the claims as follows:

1. (Currently Amended) A memory device characterized by comprising:
a non-volatile memory ~~(11)~~-including a plurality of memory blocks which stores data and each of which is comprised of one or more physical pages each including one or more logical pages and a redundancy portion; and

a controller ~~(12, S314, S308 to S310)~~ which, when to-be-written data is supplied to said memory device, writes said to-be-written data in that empty logical page in said logical pages which is in a data storable state, discriminates whether to-be-replaced data to be replaced with said to-be-written data is stored in said logical pages, and writes validity data indicating that said to-be-replaced data is not valid in that physical page which includes said logical page that stores said to-be-replaced data, when having discriminated that said to-be-replaced data is stored in said logical page.

2. (Currently Amended) The memory device according to claim 1, characterized in that when information for specifying a to-be-read logical page to be read out is supplied to said memory device, said controller ~~(12)~~-specifies said to-be-read logical page based on said information, reads data from said specified to-be-read logical page and sends said read data outside ~~(S201 to S214)~~.

3. (Currently Amended) The memory device according to claim 1, characterized in that physical addresses are allocated to said logical pages,
said memory device further comprises a second memory ~~(123)~~-which is randomly accessible and stores ~~for storing~~-an address translation table representing a correlation between

said physical addresses of said logical pages and logical addresses to be used to specify said logical pages by an external unit, and a third memory (123) which is randomly accessible and stores for storing a write pointer that points the empty logical page in said logical pages which is in a data storable state and instructs the physical address of said specified empty logical page, and

when this memory device is activated, said controller reads the redundancy portions of said non-volatile memory and prepares the address translation table in said second memory and the write pointer in said third memory; and

when to-be-written data and a logical address are supplied to said memory device, said controller (12) writes said to-be-written data in said empty logical page pointed by said write pointer, and renews said address translation table in such a way as to show a correlation between said physical address of said empty logical page and said logical address (S321).

4. (Currently Amended) The memory device according to claim 3, characterized in that said controller (12) writes validity data indicating that said written to-be-written data is valid in the physical page which includes the logical page where said to-be-written data is stored (S314), specifies the logical page where data is not stored based on said validity data and treats said specified logical page as said empty logical page.

5. (Currently Amended) The memory device according to claim 4, characterized in that said controller (12) discriminates whether or not data stored in each of said logical pages in to-be-erased memory blocks is valid based on said validity data (S501), specifies that logical pages which are located in another memory blocks and where data is not stored and

transfers that data which has been discriminated as valid into said specified logical pages (~~S502 and S503, S507~~), and erases data stored in said to-be-erased memory blocks (~~S504~~).

6. (Currently Amended) The memory device according to claim 5, characterized in that when information for specifying a to-be-read logical page to be read out is supplied to said memory device, said controller (~~12~~) specifies said to-be-read logical page based on said information, reads data from said specified to-be-read logical page and sends said read data outside (~~S201 to S214~~).

7. (Currently Amended) The memory device according to claim 1, characterized in that said controller (~~12~~) writes said validity data in an area which is not included in any one of logical pages in that physical page which includes said logical page that stores said to-be-replaced data (~~S308 to S310~~).

8. (Currently Amended) The memory device according to claim 7, characterized in that when information for specifying a to-be-read logical page to be read out is supplied to said memory device, said controller (~~12~~) specifies said to-be-read logical page based on said information, reads data from said specified to-be-read logical page and sends said read data outside (~~S201 to S214~~).

9. (Currently Amended) A memory managing method of managing a non-volatile memory (~~11~~) including a plurality of memory blocks which stores data and each of which is comprised of one or more physical pages each including one or more logical pages and a redundancy portion, characterized by comprising the steps of:

writing, when to-be-written data is supplied to said memory, said to-be-written data in that empty logical page in said logical pages which is in a data storable state-(S314); and

discriminating whether to-be-replaced data to be replaced with said to-be-written data is stored in said logical pages, and writing validity data indicating that said to-be-replaced data is not valid in that physical page which includes said logical page that stores said to-be-replaced data, when it is discriminated that said to-be-replaced data is stored in said logical page-(S308 to S310).

10. (Currently Amended) The memory managing method according to claim 9, characterized in that validity data indicating that said written to-be-written data is valid is written in that physical page which includes the logical page where said to-be-written data is stored (S314), that logical page where data is not stored is specified based on said validity data and said specified logical page is treated as said empty logical page.

11. (Currently Amended) The memory managing method according to claim 10, characterized by further comprising the steps of: discriminating in that it is discriminated whether or not data stored in each of said logical pages in to-be-erased memory blocks is valid based on said validity data (S501), specifying that logical pages which are located in another memory blocks and where data is not stored, transferring is specified and the data which has been discriminated as valid is transferred into said specified logical pages-(S502 and S503, S507), and erasing data stored in said to-be-erased memory blocks is erased-(S504).

12. (Currently Amended) A computer-readable medium storing a program for allowing a computer-(121), connected to a non-volatile memory (11)-including a plurality of

memory blocks which stores data and each of which is comprised of one or more physical pages each including one or more logical pages and a redundancy portion, to function to:

write, when to-be-written data is supplied to said memory, said to-be-written data in that empty logical page in said logical pages which is in a data storable state ~~(S314)~~; and

discriminate whether to-be-replaced data to be replaced with said to-be-written data is stored in said logical pages, and write validity data indicating that said to-be-replaced data is not valid in that physical page which includes said logical page that stores said to-be-replaced data, when it is discriminated that said to-be-replaced data is stored in said logical page ~~(S308 to S310)~~.